SAFETY DATA SHEET

1. Identification

Product number 80-749

Product identifier Ultra-Clear Glass Cleaner

Company information KIMBALL MIDWEST

4800 ROBERTS RD COLUMBUS, OH 43228

Company phone 1-800-233-1294

Emergency telephone US 1-800-424-9300 (Chemtrec)

Version # 01

Recommended use Glass Cleaner **Recommended restrictions** None known.

2. Hazard(s) identification

Physical hazards Gases under pressure Liquefied gas

Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Contains gas under pressure; may explode if heated.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Protect from sunlight. Store in a well-ventilated place.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

The Safety Information Sheet Chemicals of hazardous chemical can be obtained through phone,

email or on the company website.

Supplemental information Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-Butoxyethanol		111-76-2	2.5 - 10
Ethyl Alcohol		64-17-5	2.5 - 10
Butane		106-97-8	1 - 2.5
Propane		74-98-6	1 - 2.5
Other components below reporta	ble levels		90 - 100

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

InhalationMove to fresh air. Get medical attention if symptoms persist.Skin contactGet medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Product name: Ultra-Clear Glass Cleaner

Ingestion

Most important symptoms/effects, acute and

delayed

In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.

Direct contact with eyes may cause temporary irritation.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire-fighting equipment/instructions Do not use water jet as an extinguisher, as this will spread the fire.

Contents under pressure. During fire, gases hazardous to health may be formed.

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods General fire hazards Move container from fire area if it can be done without risk.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not re-use empty containers. Do not get this material in contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Level 1 Aerosol (NFPA 30B)

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type `	, Value	
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3	_
·		50 ppm	
Ethyl Alcohol (CAS 64-17-5)	PEL	1900 mg/m3	

Product name: Ultra-Clear Glass Cleaner

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	туре	value	
		1000 ppm	
Propane (CAS 74-98-6)	PEL	1800 mg/m3	
		1000 ppm	
US. ACGIH Threshold Limit Value	5		
Components	Туре	Value	
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm	
Butane (CAS 106-97-8)	STEL	1000 ppm	
Ethyl Alcohol (CAS 64-17-5)	STEL	1000 ppm	
US. NIOSH: Pocket Guide to Chen	nical Hazards		
Components	Туре	Value	
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3	
,		5 ppm	
Butane (CAS 106-97-8)	TWA	1900 mg/m3	
		800 ppm	
Ethyl Alcohol (CAS 64-17-5)	TWA	1900 mg/m3	
		1000 ppm	
Propane (CAS 74-98-6)	TWA	1800 mg/m3	
		1000 ppm	

Value

Biological limit values

Components

ACGIH Biological	Exposure Indices
C	Value

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA),	Creatinine in urine	*
		with hydrolysis		

^{* -} For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

US - Tennesse OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

controls

Appropriate engineering

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If

exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear protective gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

If engineering controls do not maintain airborne concentrations below recommended exposure Respiratory protection limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

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Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work

clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Clear.

Physical state Liquid.

Form Aerosol. Liquefied gas.
Color Colorless. Pale yellow

Odor Butyl

Odor threshold Not available.

pH 9.5 - 10.5 estimated

Melting point/freezing point Not available.

Initial boiling point and boiling

range

212 °F (100 °C) estimated

Flash point -156.0 °F (-104.4 °C) Propellant estimated

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 80 - 100 psig @70F estimated

Vapor density Not available.

Relative density 0.97 g/cm3 estimated

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

Aerosol spray enclosed space

Deflagration density > 2.52 g/cm3 Tested

Aerosol spray ignition

< 15 cm Tested estimated

distance

Density

0.97 g/cm3 estimated
Flammability class
Flammable IB estimated
3.34 kJ/g estimated
Heat of combustion (NFPA

3.21 kJ/g estimated

30B)

Percent volatile 99.39 % estimated

Specific gravity 0.97 estimated

VOC (Weight %) 9.78 % estimated

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Product name: Ultra-Clear Glass Cleaner

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use. Hazardous polymerization does not

occur.

Conditions to avoid

Avoid temperatures exceeding the flash point. Contact with incompatible materials. Fire or intense

heat may cause violent rupture of packages.

Incompatible materials

Hazardous decomposition

Hazardous decompos products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

IngestionExpected to be a low ingestion hazard.InhalationProlonged inhalation may be harmful.

Skin contact 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and

prolonged. These effects have not been observed in humans.

No adverse effects due to skin contact are expected.

Eye contact Direct contact with eyes may cause temporary irritation.

Strong oxidizing agents.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Product Species Test Results

19 OZ ULTRA CLEAR GLASS CLEANER LB 12PK (CAS Mixture)

ULTRA CLEAR GLA	ASS CLEANER LB 12PK (CAS Mixture)	
Acute		
Dermal		
LD50	Guinea pig	8024.9819 ml/kg, 24 Hours estimated
		254.7059 ml/kg, 4 Days estimated
	Rabbit	6518.1216 mg/kg, 24 Hours estimated
		5238.5664 ml/kg, 24 Hours estimated
	Rat	69782.4531 mg/kg, 24 Hours estimated
Inhalation		
LC100	Cat	2571.4285 % estimated
LC50	Cat	2554.7151 mg/l, 4.5 Hours estimated
		1306.521 mg/l, 6 Hours estimated
	Mouse	35342.8555 mg/l, 120 Minutes estimated
		2375.8462 mg/l, 134 Minutes estimated
		1485.7142 %, 120 Minutes estimated
		457.1429 mm/l, 2 Hours estimated
	Rabbit	13956.4902 ppm, 7 Hours estimated
	Rat	15065.334 ppm, 4 Hours estimated
		8635.582 mg/l, 6 Hours estimated
		1092.8505 mg/l, 4 Hours estimated
		75.2338 mg/l/4h estimated
Oral		
LD100	Rabbit	24249.4023 mg/kg estimated
LD50	Dog	24249.4023 mg/kg estimated
	Guinea pig	41869.4727 mg/kg estimated
	Rat	16992.5254 mg/kg estimated

Product name: Ultra-Clear Glass Cleaner

Components	Species	Test Results
2-Butoxyethanol (CAS 111-76	6-2)	
Acute		
Dermal		
LD50	Guinea pig	230 ml/kg, 24 Hours
		7.3 ml/kg, 4 Days
	Rabbit	450 ml/kg, 24 Hours
		435 mg/kg, 24 Hours
		220 mg/kg
		0.63 ml/kg
	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rabbit	400 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
		2.21 mg/l/4h
Oral		· ·
LD100	Rabbit	695 mg/kg
LD50	Dog	> 695 mg/kg
	Guinea pig	1200 mg/kg
	Rat	530 - 2800 mg/kg
		470 mg/kg
Butane (CAS 106-97-8)		470 mg/kg
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
Ethyl Alcohol (CAS 64-17-5)		3
Acute		
Inhalation		
LC50	Cat	85.41 mg/l, 4.5 Hours
		43.68 mg/l, 6 Hours
	Mouse	> 60000 ppm
		79.43 mg/l, 134 Minutes
	Rat	> 115.9 mg/l, 4 Hours
		51.3 mg/l, 6 Hours
Oral		
LD50	Monkey	6000 mg/kg
	Mouse	10500 ml/kg
	Rat	7800 ml/kg
	1 (3)	7060 mg/kg
Other		. 550 mg/ng
LD50	Mouse	6000 mg/kg
	Rat	4070 mg/kg
Propane (CAS 74-98-6)		1010 119119
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes

Test Results Components **Species** Rat 1355 mg/l 658 mg/l/4h

Prolonged skin contact may cause temporary irritation. Skin corrosion/irritation Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

Not classified.

single exposure

Specific target organ toxicity -

Not classified.

repeated exposure

Aspiration hazard Not an aspiration hazard. Not likely, due to the form of the product.

Prolonged inhalation may be harmful. May be harmful if absorbed through skin. Chronic effects

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and

prolonged. These effects have not been observed in humans.

12. Ecological information

Harmful to aquatic life with long lasting effects. **Ecotoxicity**

Product		Species	Test Results
19 OZ ULTRA CLEAR	GLASS CLEANER	R LB 12PK (CAS Mixture)	
Aquatic			
Crustacea	EC50	Daphnia	53501.5 mg/L, 48 Hours estimated
Fish	LC50	Fish	42462.0469 mg/l, 96 hours estimated
Components		Species	Test Results
2-Butoxyethanol (CAS	111-76-2)		
Aquatic			
Crustacea	EC50	Daphnia	1819 mg/L, 48 Hours
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
Ethyl Alcohol (CAS 64-	17-5)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	7700 - 11200 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promela	s) > 100.1 mg/l, 96 hours

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow)

0.83 2-Butoxyethanol 2.89 Butane Ethyl Alcohol -0.31

Product name: Ultra-Clear Glass Cleaner

^{*} Estimates for product may be based on additional component data not shown.

Partition coefficient n-octanol / water (log Kow)

Propane 2.36

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsConsult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush.

Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in

accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950 UN proper shipping name Aerosols

Transport hazard class(es)

Class 2.2 Subsidiary risk -Label(s) None

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number UN1950

UN proper shipping name Transport hazard class(es) Aerosols, non-flammable

Class 2.2 Subsidiary risk -Label(s) 2.2

Packing group Not applicable.

Environmental hazards No. **ERG Code** 2L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only Allowed.

Packaging Exceptions LTD QTY

IMDG

UN number UN1950 UN proper shipping name AEROSOLS

Transport hazard class(es)

Class 2.2

Subsidiary risk Label(s) None

Packing group Not applicable.

Environmental hazards

Marine pollutant No.

Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Packaging Exceptions Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No Fire Hazard - No Pressure Hazard - Yes Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Not regulated.

Product name: Ultra-Clear Glass Cleaner

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8) Propane (CAS 74-98-6)

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

2-Butoxyethanol (CAS 111-76-2) Butane (CAS 106-97-8) Ethyl Alcohol (CAS 64-17-5)

Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2)

Butane (CAS 106-97-8) Ethyl Alcohol (CAS 64-17-5) Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

2-Butoxyethanol (CAS 111-76-2)

Butane (CAS 106-97-8) Ethyl Alcohol (CAS 64-17-5) Propane (CAS 74-98-6)

US. Rhode Island RTK

Butane (CAS 106-97-8) Propane (CAS 74-98-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region

Country(s) or region	inventory name	On inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

Inventory name

Issue date 09-03-2014

Version # 01

References EPA: AQUIRE database

NLM: Hazardous Substances Data Base

US. IARC Monographs on Occupational Exposures to Chemical Agents

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On inventory (yes/no)*

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision Information

Product and Company Identification: Product Uses

Product name: Ultra-Clear Glass Cleaner